Irene Ni

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Skills

Programming Languages	Python, Javascript, C++, C#, HTML5, CSS3
Tools + Frameworks	ReactJS, NodeJS, React Native, NoSQL, Git
Design + Graphics	Figma, Adobe XD, Photoshop, Illustrator

Experience

Engineering Design Research Assistant *Waterloo, ON*
University of Waterloo *May 2021 - Aug 2021*

- Investigated how to improve student design cognition through technology supports under Professor Ada Hurst
- Spearheaded product and visual design for a web app that tracks students' design process when solving open-ended problems
- Leveraged web scraping methods in **Python** to extract **300+** engineering program descriptions from university websites
- Built an NLP Pipeline using **Python, Natural Language Toolkit** and **Pandas** to analyze top n-grams in engineering recruitment materials, laying foundation for topic modeling with LDA

Better Lives App Developer *Toronto, ON*
Ideasinc *Apr 2021 - Current*

- Android app connecting Toronto's homeless population with e-Donations, shelters, and community services
- Translated abstract research from outreach workers to a **user-centred design** that balanced the needs of citizens, community providers, and homeless
- Led the delivery of **Adobe Xd** prototypes to key stakeholders including the City of Toronto and TD Bank

Projects

Recipro App | React Native + JS *Remote*
TU20 Cup *Feb 2021*

- Built a full featured social networking app fostering reciprocal acts of kindness between neighbors
- Reduced development time by taking ownership of both UI/UX design in **Figma** and implementation of user interfaces in **React Native**, and performed unit testing on React components with **Jest**
- Ran user interviews and surveys with **50+ respondents** to refine social features and identify need for in-app messaging
- Implemented **Cloud Firestore** back-end to manage user data, task requests and social features

Habbit Budgeting App | React Native + JS *Remote*
Shehacks V *Jan 2021*

- Conceived end-to-end features for a gamified financial literacy app that helps kids build income-tracking habits
- Used **JavaScript** and state hooks to allow users to log their transactions while updating and displaying account balance
- Translated hand-drawn graphics and **Figma** wireframes to intuitive and responsive interfaces in **React Native**

Scalefy Wheelchair Scale *Waterloo, ON*
Intro to Biomedical Design *Sep 2020 - Dec 2020*

- Designed a wheelchair compatible home-use scale for spinal injury patients at **1/5 market price**
- Organized deliverables to ensure project completion in four months
- Deployed QFD, engineering force analysis, and technical drawings as part of an iterative design process

Graphic Design + Marketing Coordinator *Oakville, ON*
Tech Under 20 *Jun 2019 - Jan 2020*

- Led a team to develop content promotion and distribution strategies, growing impressions by 55% to **600+** per week
- Achieved a **40% increase** in follower engagement through custom event marketing videos (Adobe CC) for competitions and the launch of a mentorship program that highlighted skill-building opportunities in tech

Education

University of Waterloo *Waterloo, ON*
BASc Biomedical Engineering *Sep 2020 - Apr 2025 (Expected)*

- Relevant Courses: Data Structures & Algorithms (**C++**), Digital Computation (**C#**), Human Factors in Design
- **Related Awards**: NSERC Undergraduate Student Research Award ($6,000), President's Scholarship of Distinction ($2,000), 1st Place Waterloo Engineering Competition, 3rd Place University of Waterloo Sandford Fleming Debate
- Extracurriculars: BioMechatronics Club, UW Quizbowl